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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/792,237

03/03/2004

Manabu Fujita

17517

4668

23389

7590

07/24/2008

SCULLY SCOTT MURPHY & PRESSER, PC

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EXAMINER

SMITH, PHILIP ROBERT

ART UNIT

PAPER NUMBER

3739

MAIL DATE

DELIVERY MODE

07/24/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/792,237

Applicant(s)

FUJITA ET AL.

Examiner

PHILIP R. SMITH

Art Unit

3739

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 May 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) 1-6 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 7-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-946)
- 3) ☐ Information Disclosure Statement(s) (PTO/SG/US)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 U.S.C. 112, Paragraph Two

- [01] The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
- [02] Claims 7-18 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
- [03] With regard to claim 7: Applicant recites "timing for switching communication direction of the receiving and transmitting". There is a lack of antecedent basis. The following is recommended:
"timing for switching the communication ~~direction of the receiving and transmitting state~~..."
- [04] With regard to claim 8-18: The indefiniteness identified above with regard to claim 7 applies equally to claims 8-18, which also recite a "communication direction".
- [05] With regard to claims 9,14: the recited "operation for connection for the transmitting or receiving" lacks antecedent basis. Also, it is not clear how an "operation" could be "not establishable", as recited. Further, it is not clear what the final word of claim 9 refers to; "the antenna" does not clearly refer back to one of the particular "plurality of antennas" recited earlier in the claim.
- [06] With regard to claims 12,17: Applicant recites a stored communication state detected by the detecting device which may be either (a) a transmitting state where the extracorporeal device carries out transmission to the in-body unit, or (b) a receiving state for receiving transmission from the in-body unit. Applicant further recites that when such information is referred to in order to "select the antenna that is assured to be communicable". It is not clear how knowledge of the extracorporeal device's transmit/receive state is capable of assuring the selection of a

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communicable antenna. Secondly, "the antenna that is assured to be communicable" lacks antecedent basis.

Claim Rejections - 35 USC § 102

- [07] The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
- [08] Claims 7-18 are rejected under 35 U.S.C. 102(a) as being anticipated by Fujita (2003/0085994).
- [09] Fujita discloses a capsular medical system comprising:
- [09a] a capsular in-body unit ("capsule type endoscope 3," [0074]) having a radio communication device ("antenna 23," [0074]) which is inserted or swallowed to be introduced to the body cavity;
 - [09b] an extracorporeal device ("external unit 5," [0070]) comprising a communication device for communication with the in-body unit, which is arranged outside the human body;
 - [09c] a plurality (at least two) antennas connected to the extracorporeal device ("multiple antennas 11a to 11d," [0070]) arranged near the body surface to communicate data to the in-body unit;
 - [09d] a switching device ("antenna switch 45," [0071]) which switches the antennas;
 - [09e] a timer which is set to a predetermined time interval ("repeated at proper intervals of time" [0083]); and
 - [09f] a detecting device ("receiving circuit 33," [0075]) which detects, at the predetermined time interval, a communication state including a transmitting state where the extracorporeal device carries out transmission to the in-body unit, and a receiving state where the extracorporeal device carries out reception from the in-body unit,

[10] With regard to claim 7:

[10a] Fujita discloses that the extracorporeal device synchronizes timing for switching the antenna with timing for switching communication direction of the receiving and transmitting in accordance with a communication state detected by the detecting device at the predetermined time interval set by the timer. For example, Fujita discloses transmitting strength data via sequentially switched antennas "11a, 11b,..., 11d" in [0073] and then receiving strength data via sequentially switched antennas "11a, 11b,..., 11d" in [0075]. At the time when the extracorporeal device stops transmitting via "11d" and starts receiving via "11a", the antenna switching timing and the communication state switching timing are synchronized. The synchronizations are "repeated at proper intervals of time", as noted above.

[11] With regard to claim 8:

[11a] Fujita further discloses an antenna selecting device which detects a receiving strength, in the in-body unit, of signals transmitted from at least two antennas and selects the antenna in a preferable receiving and transmitting state ("highest radio wave strength" [0075]).

[11b] Fujita discloses that the extracorporeal device synchronizes timing for switching the antenna with timing for switching communication direction of the receiving and transmitting in accordance with a communication state detected by the detecting device at the predetermined time interval set by the timer, to control the antenna selecting device to select the antenna, as noted above.

[12] With regard to claim 9:

- [12a] Fujita discloses an antenna selecting device which detects a receiving strength, in the in-body unit, of signals transmitted from at least two antennas and selects the antenna in a preferable receiving and transmitting state ("highest radio wave strength" [0075]).
- [12b] Fujita discloses that the extracorporeal device synchronizes timing for switching the antenna with timing for switching communication direction of the receiving and transmitting at the predetermined time interval set by the timer, and when operation for connection for the transmitting or receiving is not establishable, the antenna selecting device is controlled to select the antenna ("the antenna 11i, through which the highest radio wave strength data can be received, must be changed," [0083]).
- [13] With regard to claim 10:
- [13a] Fujita discloses an antenna selecting device which detects a receiving strength, in the in-body unit, of signals transmitted from at least two antennas and selects the antenna in a preferable receiving and transmitting state ("highest radio wave strength" [0075]).
- [13b] Fujita discloses that a number n of antennas whose receiving and transmitting states are detected is less than a number N of all of the attached antennas at a time of antenna switching ([0132]).
- [13c] Fujita discloses that the extracorporeal device synchronizes timing for switching the antenna with timing for switching communication direction of the receiving and transmitting in accordance with a communication state detected by the detecting device at the predetermined time interval set by the timer, as noted above.

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- [14] With regard to claim 11: Fujita discloses that the antenna whose receiving and transmitting state is checked is determined based on the antenna which currently receives data ("highest radio wave strength" [0075]).
- [15] With regard to claim 12:
- [15a] Fujita discloses an antenna selecting device which detects a receiving strength, in the in-body unit, of signals transmitted from at least two antennas and selects the antenna in a preferable receiving and transmitting state ("highest radio wave strength" [0075]).
- [15b] Fujita discloses a storing device which stores the communication state detected by the detecting device ("memory 47," [0072]).
- [15c] Fujita discloses that the extracorporeal device synchronizes timing for switching the antenna with timing for switching communication direction of the receiving and transmitting at the predetermined time interval set by the timer, and when the receiving strength data is not obtainable in the selecting of the antenna by the antenna selecting device, the extracorporeal device refers to the communication state stored in the storing device.
- [16] With regard to claim 13:
- [16a] Fujita discloses an antenna selecting device which detects a receiving strength, in the in-body unit, of signals transmitted from at least two antennas and selects the antenna in a preferable receiving and transmitting state ("highest radio wave strength" [0075]).
- [16b] Fujita discloses that the detecting device controls the antenna selecting device to select the antenna in accordance with the communication state detected by the detecting device and at the predetermined interval set by the timer, as noted above.
- [17] With regard to claim 14:

- [17a] Fujita discloses an antenna selecting device which detects a receiving strength, in the in-body unit, of signals transmitted from at least two antennas and selects the antenna in a preferable receiving and transmitting state ("highest radio wave strength" [0075]).
- [17b] Fujita discloses that the detecting device controls the antenna selecting device to select the antenna when operation for connection for the transmitting to receiving is not establishable (as noted above).
- [18] With regard to claim 15:
- [18a] Fujita discloses an antenna selecting device which detects a receiving strength, in the in-body unit, of signals transmitted from at least two antennas and selects the antenna in a preferable receiving and transmitting state ("highest radio wave strength" [0075]).
- [18b] Fujita discloses that the detecting device detects communication states of antennas of a predetermined number less than a number of all of the plurality of all the antennas (since "antennas 11i" are "switched sequentially" [0075], this is necessarily the case; where $n=1$ and $N="i"$).
- [18c] Fujita discloses that the extracorporeal device synchronizes timing for switching the antenna with timing for switching communication direction of the receiving and transmitting in accordance with the communication state detected by the detecting device and at the predetermined time interval set by the timer (as noted above).
- [19] With regard to claim 16: Fujita discloses that the antenna whose receiving and transmitting state is checked is determined based on the antenna which currently receives data ([0074]).
- [20] With regard to claim 17:

- [20a] Fujita discloses an antenna selecting device which detects a receiving strength, in the in-body unit, of signals transmitted from at least two antennas and selects the antenna in a preferable receiving and transmitting state ("highest radio wave strength" [0075]).
- [20b] Fujita discloses a storing device which stores the communication state detected by the detecting device ("memory 47," [0072]).
- [20c] Fujita discloses that the extracorporeal device synchronizes timing for switching the antenna with timing for switching communication direction of the receiving and transmitting at the predetermined time interval set by the timer, and when the receiving strength data is not obtainable in the selecting of the antenna by the antenna selecting device, the extracorporeal device refers to the communication state stored in the storing device.
- [21] With regard to claim 18: Fujita discloses that the detecting device selects one of the at least two antennas arranged to communicate data to the in-body unit connected to the extracorporeal device, via the switching device, in response to a detected communication state corresponding to movement of the capsular in-body unit in the body cavity. This is the process described in [0075].

Response to Arguments

- [22] Applicant's arguments filed 5/12/08 have been fully considered but they are not persuasive.
- [23] Applicant asserts that Fujita does not anticipate the rejections of claims 7-18, and requests withdrawal of the rejections. As noted above, it is maintained that Fujita anticipates the recited subject matter to the extent that it can be understood and interpreted.

Conclusion

- [24] **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

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- [25] A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.
- [26] Any inquiry concerning this communication or earlier communications from the examiner should be directed to PHILIP R. SMITH whose telephone number is (571)272-6087 and whose email address is philip.smith@uspto.gov. The examiner can normally be reached between 9:00am and 5:00pm.
- [27] If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Linda Dvorak can be reached on (571) 272 4764.
- [28] Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Philip R Smith/

Examiner, Art Unit 3739

/Linda C Dvorak/

Supervisory Patent Examiner, Art Unit 3739